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ABSTRACT

This booklet contains information and resources to plan for reading and mathematics improvement goals for elementary, middle/junior high, and high schools in the Washington public schools according to the Academic Achievement and Accountability Commission and the results of the 2001 Washington Assessment of Student Learning (WASL). This booklet lists a summary of reading and mathematics improvement goal requirements; modifications made in the spring of 2001; how to calculate minimum goals; and questions and answers concerning the goal requirements. A second section provides tools to assist schools in developing improvement plans. Such tools focus on comprehensive school planning; improving reading achievement; and improving mathematics achievement. (PM)

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ED 466 809

# School Improvement Planning

Information and resources to plan for:

# Reading and Mathematics Improvement Goals

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**Dr. Terry Bergeson**

State Superintendent of Public Instruction

This document and additional resources and planning tools are available at www.k12.wa.us.

**September 24, 2001**
**2nd Revision**

CS 511 287

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## Feedback Wanted!

This document will be updated and expanded as new tools and resources are identified. In addition, we plan to put these tools and resources on the OSPI website.

Thus, we would appreciate hearing from you if you have any recommended additions, changes, or comments about the usefulness of the tools and resources that we have included.

Please e-mail your recommendations and comments to gpauley@ospi.wednet.edu

**School Improvement Planning:**

# Information and Resources to Plan for Reading and Mathematics Improvement Goals

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# Introduction

In 1998, the Legislature required that school districts establish three-year reading improvement performance goals for elementary schools to be achieved at the end of the 2000-2001 school year as measured by the spring 2001 WASL results.

Additional improvement goals were adopted by the Legislature in 1999 for mathematics in elementary and middle/junior high schools. The Legislature also delegated authority to the Academic Achievement and Accountability Commission to establish other goals and to modify the goals that had been established.

Consistent with this authority, the Academic Achievement and Accountability Commission adopted a rule spring 2001 that requires school boards to establish reading and math goals for elementary, middle/junior high, and high schools by December 15, 2001. School districts and schools are to use their 4$^{th}$ grade, 7$^{th}$ grade, and 10$^{th}$ grade spring 2001 WASL scores as baseline data to establish their reading and mathematics goals for the end of the 2003-04 school year. The calculation for computing the state improvement goal remains the same (i.e., a 25% reduction in students NOT meeting the standard).

In addition to establishing new goals, the commission's rule modifies the allowable baseline years for the elementary and middle/junior high mathematics goal requirements. The prior requirement allowed school boards to choose from a number of years when they selected a baseline. The new rule requires that the spring 2001 WASL scores be used. Also, there is a minimum improvement level for individual schools, with waivers available.

Current law requires school districts to report annually and hold a public meeting on district and school plans to achieve the goals. Thus, schools and districts need to have plans to improve reading and mathematics instruction. These plans should be developed in the context of a comprehensive school improvement planning process.

This document is intended to provide essential information for school and school district staff to be used in the development of plans designed to improve reading and mathematics achievement. This tool is included on OSPI's website (www.k12.wa.us)

If you have questions about this document, please call the Office of Superintendent of Public Instruction at (360) 725-6100 or your Educational Service District (ESD). A list of OSPI and ESD contacts is included in the Comprehensive School Improvement Planning section of this document.

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# I. Reading and Mathematics Improvement Goal Requirements


A. Summary

B. Modifications Made in Spring 2001

C. How to Calculate Minimum Goals

D. Goal Setting, Reporting, and Planning Legal Requirements

E. Questions and Answers

# Reading and Mathematics Improvement Goals

## A. Summary

- School Boards must **establish goals** for the district and schools by December 15, 2001.

- The three-year goals are to be in **reading and mathematics** for **elementary, middle/junior high, and high schools**.

- The **baselines** must be the percent meeting standards on the 4th, 7th, and 10th grade WASL for **spring 2001**.

- The **goals** are to be achieved by the end of the 2003-2004 school year as measured by the **spring 2004 WASL results**.

- The **percentage increase** in students meeting the reading and mathematics standards may not be less than the district or school's total percentage of students **who did not meet the standard in 2001 multiplied by 25%** (see enclosed goal calculation form). In exceptional cases, individual schools may get a waiver from OSPI of this 25% goal requirement. Criteria for granting these waivers is on the OSPI website.

- School districts are to:

1) **Report annually** and **hold a public meeting** on:
   .. the district and school performance improvement **goals**;
   .. student **performance** relative to the goals; and
   .. district and school **plans to achieve the goals**.

2) Report annually to the local **media** the district's progress toward meeting the district and school goals; and

3) Include the goals, student performance relative to the goals, and a summary of school plans to achieve the goals in each school's **Annual School Performance Report**.

- Schools and districts in which **ten or fewer students** are eligible to be assessed are not required to set goals, but are required to report to parents and the community their plans to improve student achievement.

# Reading and Mathematics Improvement Goals

## B. Modifications made in Spring 2001

| | Prior Requirements | New Requirements (WAC 3-20-100 and RCW 28A.655.100) |
|---|---|---|
| **Due date for School Boards to set Three-Year Percentage Increase Goals** | December 15, 2001 | Same |
| **Goal requirements**<br>**- Mathematics**<br><br>**- Reading** | 4th and 7th grades<br><br>4th grade goal for 2001 | 4th, 7th, and 10th grades<br><br>4th, 7th, and 10th grades |
| **Goal year** | 2003-04 school year | Same |
| **Baselines** | Could choose from multiple years | Spring 2001 |
| **Minimum improvement** | 25% reduction in students NOT meeting standard | Same |
| **School goals** | Individual school goal could be less than 25% | Individual school goal may be less than 25%, but OSPI waiver required. However, for state accountability purposes, the minimum improvement goal will be used for schools even if the district selects a higher goal or unless a waiver is granted |
| **Reports to parents, community, and media** | Annual reports and public meeting required | Same |
| **Districts/schools plans** | Districts and schools required to have and annually report on plans to improve achievement | Same |
| **Small districts/schools** | Schools/districts with 10 or fewer students assessed are not required to set numerical goals, but must report plans to improve achievement | Same |

# Reading and Mathematics Improvement Goals

## C. How to Calculate Minimum Goals

***Use your WASL district or school report from 2001 or go to the OSPI website (www.k12.wa.us) and use the "Education Profile" tool.***

Fill in the numbers below separately for reading and mathematics:

**Step #1**

____% at Level 3
\+ ____% at Level 4

____% Meeting or exceeding the standard.

**Step #2**

100 %
\- ____ % Meeting or exceeding the standard *(Answer in Step #1)*

____ % NOT meeting or exceeding the standard

**Step #3**

____ % Not meeting or exceeding the standard *(Answer in Step #2)*
x .25

____ % Increase needed to meet goal.
(The minimum goal for your school/district is to increase the percent meeting the standard by at least this amount by Spring 2004)

**Step #4**

____ % Meeting or exceeding the standard *(Answer in Step #1)*
\+ ____ % Increase needed to meet goal *(Answer to Step #3)*

**____ % Minimum 2004 Performance Improvement Goal**

# Reading and Mathematics Improvement Goals

## D. Goal Setting Requirements

(WAC 3-20-100)

(1) Each school district board of directors shall:

(a) By December 15, 2001, establish three-year district-wide goals to increase the percentage of students who meet or exceed the standard on the Washington assessment of student learning for elementary school reading, elementary school mathematics, middle or junior high school reading, middle or junior high school mathematics, high school reading and high school mathematics. The baseline for all the performance improvement goals required under this section shall be the results obtained on the Washington assessment of student learning administered in the spring of 2001. The three-year percentage increase goals shall not be less than the district's total percentage of students who did not meet the baseline standard for the relevant subject and grade level multiplied by twenty-five percent (25%); and

(b) Direct each school in the district that administers the Washington assessment of student learning for grade four, seven, or ten to establish three-year goals relating to the percentage of students meeting the standard for its fourth, seventh or tenth grade students in reading and mathematics, subject to approval by the board. The aggregate of the school-level goals for any given subject and grade must meet or exceed the district-wide goals established by the board for that given subject and grade. Each school level goal shall not be less than the school's total percentage of students who did not meet the baseline standard for the relevant subject and grade level multiplied by twenty-five percent (25%), unless the office of the superintendent of public instruction grants a waiver.

(2) Schools and school districts that meet or exceed the level of performance stipulated under the three-year goal on the assessment administered in the spring of 2002 or 2003 may be considered to have exceeded the goal and may be recognized for having exceeded the goal early, but ultimately shall not be deemed to have met the three-year goal unless the school or school district also meets the goal on the assessment administered in the spring of 2004.

(3) Schools and school districts in which ten or fewer students are eligible to be assessed in a grade level on the 2001 Washington assessment of student learning are not required to establish numerical improvement goals. Schools and school districts in which ten or fewer students are eligible to be assessed in a grade level on the assessment in 2002 or in a subsequent year are not required to establish performance relative to the goals.

(4) For state level accountability purposes:

(a) a school district shall be deemed to have met the performance improvement goals established pursuant to this chapter if the district achieves the minimum improvement level required under section 1(a) of this chapter, even if the district does not achieve the performance improvement goals adopted by its board of directors; and

(b) a school shall be deemed to have met the performance improvement goals established pursuant to this chapter if the school achieves the minimum improvement level required under section 1(b) of this chapter, even if the school does not achieve the performance improvement goals adopted by its board of directors.

**Reporting and Planning Requirements**
(RCW 28A.655.100)

Each school district board of directors shall:

(1) (a) Annually report to parents and to the community in a public meeting and annually report in writing the following information:
- (i) District-wide and school-level performance improvement goals;
- (ii) Student performance relative to the goals; and
- (iii) District-wide and school-level plans to achieve the goals, including curriculum and instruction, parental or guardian involvement, and resources available to parents and guardians to help students meet the state standards;

(b) Report annually in a news release to the local media the district's progress toward meeting the district-wide and school-level goals; and

(c) Include the school-level goals, student performance relative to the goals, and a summary of school-level plans to achieve the goals in each school's annual school performance report under RCW 28A.655.110.

(2) School districts in which ten or fewer students in the district or in a school in the district are eligible to be assessed in a grade level are not required to report numerical improvement goals and performance relative to the goals, but are required to report to parents and the community their plans to improve student achievement. [1999 c 388 § 302.]

# Reading and Mathematics Improvement Goals

## E. Questions and Answers

### I. Setting the Goals

**A. What must be completed by December 15, 2001?**

By December 15, 2001, school boards are to:

- Establish **district** 4th, 7th, and 10th grade reading and mathematics performance improvement goals to be met by the end of the 2003-2004 school year; and

- Establish **school** reading and mathematics performance improvement goals for all schools that have 4th, 7th, and 10th grades to be met by the end of the 2003-2004 school year.

**B. We heard that 2001 must be used as a baseline? Is that a change?**

Yes, it is a change. In earlier requirements for 4th and 7th mathematics goals, schools and districts could select a baseline from a number of years (e.g., 1998, 1999, 2000). To ensure consistency, all schools/districts are to use their 2001 WASL results as their baseline.

**C. What is the minimum improvement goal? How is it to be calculated?**

The amount of improvement from spring 2001 to spring 2004 must equal or exceed the district's or school's percentage of students who did NOT meet the WASL reading and mathematics standards in 2001 multiplied by 25 percent. The minimum performance improvement goal for 2004 must equal or exceed this percentage plus the total who DID meet the standard in 2001. Please refer to "How to Calculate the Minimum Goals" for a step-by-step process for calculating goals.

Waivers of the minimum goal for individual schools may be obtained from OSPI.

**D. What if we have an elementary school, middle/ junior high, or high school that does not include a 4th, 7th, or 10th grade?**

Schools without a 4th, 7th, or 10th grade do not need to set reading and mathematics goals. However, they must report to parents and the community their plans to improve student achievement in reading and mathematics.

**E. If we have 10 or fewer students who are eligible to be assessed at a grade level, must we establish accountability goals and report progress?**

Schools and districts that have 10 or fewer students eligible to be assessed at a grade level are not required to establish numerical improvement goals and report progress, but are required to report to parents and the community their plans to improve student achievement.

**F. Are districts and schools required to adopt policies on the reading and mathematics goals?**

The rule states that school district boards of directors need to adopt district and building reading and mathematics goals, but it does not require boards to adopt a formal policy. For purposes of adopting the goals, a board-approved resolution or action item would suffice.

**G. What format should districts and schools use to report the accountability goals to OSPI?**

A report form is on the OSPI website (www.k12.wa.us.) The form must be completed and received at OSPI by January 15, 2002.

**H. How do we apply for a waiver of the 25% goal for an individual school?**

The report form on the OSPI website will include the process for obtaining a waiver.

**I. What happens if a school or district meets the minimum reading and mathematics goals? What happens if it does not?**

Schools and districts that meet the minimum reading and math goals will be recognized by the Governor, Superintendent of Public Instruction, and Academic Achievement and Accountability Commission. At this point in time, the type of recognition is being discussed by the commission.

The Academic Achievement and Accountability Commission is currently using the results of the 2001 4th grade reading improvement goal as one of the criteria to be used when determining which schools receive "focused assistance," and will likely use the results of the 2004 goals in a similar manner.

**J. If a district meets its minimum improvement goals in the first or second year, does that mean it has met its goals?**

No. The ultimate statewide checkpoint is whether or not the minimum goals have been achieved at the end of the 2003-2004 school year.

**K. What if a district sets goals higher than the minimum?**

Districts are encouraged to set higher goals than the 25% minimum. However, for statewide accountability purposes, the 25% minimum goal will be used so that districts will not be penalized for setting higher goals.

## II. Plans to Achieve the Goals

**A. Are district and school reading and mathematics plans required? What must be included in them?**

Yes. Schools and the district must have plans to improve reading and mathematics achievement. These plans should not be developed separately, but should be developed as part of a comprehensive school improvement planning process. At a minimum, the plans must include:

- how the school/district will align curriculum and instruction with the EALRs in reading and mathematics;
- how the school/district will involve parents and guardians; and
- resources available to parents/guardians to help students meet the reading and mathematics standards.

In September, the OSPI website will include an online tool designed to assist schools in the development of comprehensive school improvement plans.

**B. What assistance will OSPI and other education organizations provide to school districts to help us develop reading and mathematics plans?**

There will be multiple opportunities for schools and districts to obtain assistance in developing plans to improve mathematics and reading achievement. Examples include:

- Regional assistance workshops (Fall 2001)
- Washington Educational Research Association Conference (December 2001 & March 2002)
- OSPI Winter Conference in Spokane (January 2002)
-- OSPI/AWSP Summer Institutes (Summer 2002)

In addition, Educational Service Districts' staffs are available to provide assistance.

**C. Are districts required to submit their plans to improve reading and mathematics to OSPI?**

No. Your plans to improve reading and mathematics instruction are not required to be submitted to OSPI. However, school districts are encouraged to put their plans on their school or school district's website.

**D. When are the plans to be completed?**

There is no required completion date for the improvement plans. However, the sooner the plans are developed and implemented, the sooner you likely will see students benefit from the planning efforts. In addition, the reporting requirements imply that the plans are completed no later than the end of the 2001-02 school year.

## III. Notification of Parents

**At a minimum, what parent/community notification is required?**

School districts must annually report to parents and to the community in a public meeting and report in writing the following information:

(i) District-wide and school-level performance improvement goals;
(ii) Student performance relative to the goals; and
(iii) District-wide and school-level plans to achieve the goals, including curriculum and instruction, parental or guardian involvement, and resources available to parents and guardians to help students meet the state standards.

Also, annual school performance reports under RCW 28A.655.110 must include the school-level goals, student performance relative to the goals, and a summary of school-level plans to achieve the goals.

## IV. Notification of the Media

**What should districts send to the media?**

Districts are required to report annually in a news release to the local media the district's progress toward meeting the district and school improvement goals.

# II. Tools to Assist Schools in Developing Improvement Plans

A. Comprehensive School Improvement Planning

B. Improving Reading Achievement

C. Improving Mathematics Achievement

# A. Comprehensive School Improvement Planning

1.) School Improvement Planning Process Model

2.) Nine Characteristics of High Performing Schools

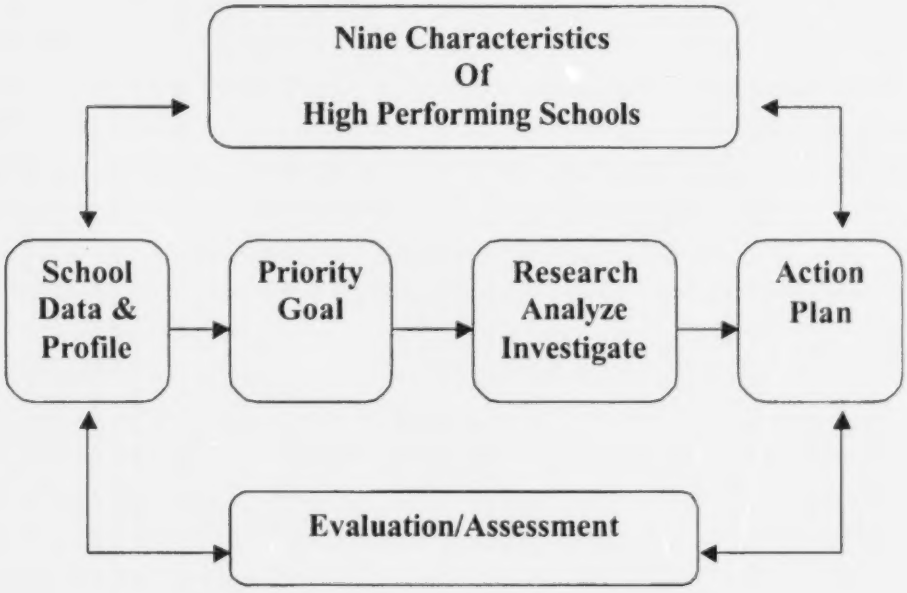
3.) OSPI Online School Improvement Planning Tool

4.) OSPI and Educational Service District Contacts

5.) Comprehensive Planning tools, resources, and materials

## 1.) School Improvement Planning Process Model

There are a number of school improvement planning process tools available to districts and schools. Many schools and districts have designed their own processes that have similar components to the following process model. You are invited to use or adapt this process as needed.




Adapted from work done by
Bernhardt, Lezotte, Holcomb & Williams

## Explanation Of The Model

**Nine Characteristics of High Performing Schools** – see pages 19 – 23 for information on the Nine Characteristics.

**School Data and Profile**
The guiding question for this first step is **"Where are we now?"**
There are three distinct areas from which a team would collect data to use to determine current status and identify strengths and challenges. They include school, district, and state student learning data, demographic data, and attitude and belief surveys. Sample surveys for Reading and Mathematics are included in the last two sections of this document.

**Priority Goal**
The guiding question for the second step is **"Where do we want to go?"** This is the overarching theme that defines your focus for improvement. An example: The district will improve their reading WASL score by 25 percent in grades four, seven, and ten by 2004.

**Research, Analyze, Investigate**
The guiding question for the third step is **"What do we know works?"** After the **Priority Goal** is established, school teams need to investigate current research to direct the decisions that will be made to write the Action Plan. As a school team, work must be done together to establish and use best research-based practices and strategies to improve students learning.

**Action Plan**
The guiding question for the fourth step is **"How do we get there?"** Developing an action plan is one of the most critical aspects of an effective school learning improvement process. An action plan consists of several components including:

- Expected Outcomes – secondary goals/objectives
- Research-based strategies and practices
- Baseline data and current status
- Realistic timelines
- Budget considerations
- Staff development /training
- Opportunities for student, staff, parent, and community input

**Evaluation**
The guiding question for the fifth step is **"How will we know when we get there?"** There are two parts to this step. The first is an evaluation process that you place in the Action Plan that guides the decisions that you make as you go through the plan. It is the monitoring and adjustment process of the total action plan. The second is the assessment of meeting your priority goal. Did we meet the priority goal? If yes, ask what do we strive to work towards in the future. If not, what needs to be revamped or reworked so that we can continue to work on meeting the goal.

## 2) Nine Characteristics of High Performing Schools

### RESEARCH FINDINGS

OSPI reviewed 20 recent research studies that have examined the common characteristics of high performing schools. Some of the studies were reviews of other research that has taken place over many year on the same topic, while others examined these schools in specific settings and locations, such as high performing elementary schools in a large urban setting. This body of research represents findings from both Washington state and around the nation.

The content of each study was analyzed to determine what characteristics were found most often among high performing schools. Performance was usually measured in terms of high or dramatically improving scores on standardized tests, often in difficult circumstances such as high levels of poverty. In every case, there was no single factor that accounted for the success or improvement. Instead, the research found that high performing schools tend to have a combination of common characteristics. Some reports found as few as five characteristics, while others found many more. OSPI's analysis of these characteristics narrowed these lists into nine areas. These schools have:

1. A clear and shared vision and purpose.
2. High standards and expectations for all their students.
3. Effective leadership in both instructional and administrative areas.
4. High levels of teamwork.
5. Aligned their curriculum and instruction with the state standards and assessments.
6. Closely monitored teaching and student progress.
7. Emphasized professional development.
8. A supporting learning environment.
9. A high level of community involvement.

Each of these nine characteristics is explained in more detail on the following page. For even more information, refer to the individual studies themselves (see the bibliography of the 20 studies). Other research has focused more narrowly on each of these nine areas and has confirmed the findings of the 20 studies. The research page of the OSPI website provides links to various studies and organizations that have conducted this type of research.

A school can be rated on each of these characteristics by having staff complete an evaluation form that asks two questions about each of the nine. This School Assessment Tool appears at the end of this section.

## Nine Characteristics of High Performing Schools

Research has shown that there is no silver bullet; no single thing that schools can do to ensure high student performance. Rather, high performing schools tend to have the following nine characteristics.

**First, these schools have a clear and shared vision and purpose.** Everybody knows where they are going and why. (Imagine putting together a puzzle without knowing what the picture looks like.) That vision needs to be shared—everybody is involved. (Not including everybody is like putting together a puzzle without all the pieces.)

**Second, these schools have high standards and expectations for all their students.** They believe that ALL students are able to do better in various subjects. There may be barriers for some students to overcome, but the barriers are not insurmountable.

**Third, effective leadership is provided in both instructional and administrative areas.** Strong leadership is required to implement change process within the school. This leadership takes on many forms. Principals often play this role, but so do teachers and other staff, including those in the district office. Effective leaders are proactive and find a way to get the job done.

**Fourth, these schools have high levels of teamwork.** There is constant collaboration and communication between teachers of all grades. Everybody is involved and connected. The pieces of the puzzle are connected to one another, not just sitting on the table loosely (no lone rangers).

**Fifth, these schools have aligned their curriculum and instruction with the state standards and assessments.** More time is made available for instruction, either during the school day or outside the school hours (e.g., before or after school).

**Sixth, these schools closely monitor teaching and student progress.** There is a steady cycle of assessments to determine who needs help and the type of help needed. This information is used to provide more help to those in need. It's not enough to know a student or teacher is doing poorly—extra support is given so students learn the subject matter.

**Seventh, these schools emphasize professional development** that is focused in areas of most need and is aligned with district or school objectives. This type of staff support is extensive and ongoing, not a short one-time occurrence.

**Eighth, these schools have a supporting learning environment.** The schools have a safe, civil, healthy atmosphere. Students feel respected and connected with the staff. Instruction is personalized and small learning environments increase student contact with teachers.

**Ninth, these schools have a high level of parental and community involvement.** There is a sense that all have a responsibility to educate students, not just the teachers and staff in schools. Parents get more involved, and so do businesses, social service agencies, and even community colleges and universities. These schools take a proactive approach and do not wait for others to offer help. They know what they need and ask for specific help.

## Nine Characteristics of High Performing Schools
## School Assessment Tool

High performing schools tend to have a combination of common characteristics. To help assess your school in these areas, circle the number that best describes the extent to which the statement listed below is true in your school.

| | Characteristic | Little or No Extent | Some Extent | Moderate Extent | Great Extent | Very Great Extent |
|---|---|---|---|---|---|---|
| 1 | All staff have a clear vision and purpose for the school. | 1 | 2 | 3 | 4 | 5 |
| | Staff has participated in creating a common vision. | 1 | 2 | 3 | 4 | 5 |
| 2 | All staff have high expectations for all students. | 1 | 2 | 3 | 4 | 5 |
| | All staff believe that all students can meet high standards. | 1 | 2 | 3 | 4 | 5 |
| 3 | Effective leadership exists in instructional areas. | 1 | 2 | 3 | 4 | 5 |
| | Many staff assume a leadership role. | 1 | 2 | 3 | 4 | 5 |
| 4 | Staff plan and work extensively with one another. | 1 | 2 | 3 | 4 | 5 |
| | Staff communicate frequently about academic matters. | 1 | 2 | 3 | 4 | 5 |
| 5 | Curriculum and instruction are aligned with state standards. | 1 | 2 | 3 | 4 | 5 |
| | Instruction is often provided beyond normal hours. | 1 | 2 | 3 | 4 | 5 |
| 6 | Student progress is analyzed on a regular basis. | 1 | 2 | 3 | 4 | 5 |
| | More instruction is provided to students who need help. | 1 | 2 | 3 | 4 | 5 |
| 7 | Professional development is focused in areas of most need. | 1 | 2 | 3 | 4 | 5 |
| | Extensive and ongoing professional development is provided. | 1 | 2 | 3 | 4 | 5 |
| 8 | Students feel safe in a healthy learning environment. | 1 | 2 | 3 | 4 | 5 |
| | Students feel respected and connected with teachers and staff. | 1 | 2 | 3 | 4 | 5 |
| 9 | Parents and the community have extensive links to the school. | 1 | 2 | 3 | 4 | 5 |
| | Outside resources are obtained to help in areas of most need. | 1 | 2 | 3 | 4 | 5 |

An analysis of the above statements can help determine the areas in which your school may want to concentrate its improvement efforts.

## Nine Characteristics of High Performing Schools
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**Other Research**


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- Dispelling the Myth: High Poverty Schools Exceeding Expectations, Education Trust, 1999.

- Educational Reform and Students at Risk, Vol. I-III, Robert Rossi and Samuel Stringfield, U.S. Department of Education, 1995.

- *Hawthorne Elementary School: The University Perspective*, Bruce Frazee (Trinity University, Texas), Journal of Education for Students Placed At Risk, 1(1), 25-31, 1996.

- Hope for Urban Education: A Study of Nine High-Performing, High-Poverty, Urban Elementary Schools, Charles A. Dana Center, Univ. of Texas (Austin), U.S. Department of Education, 1999.

- Key High School Reform Strategies: An Overview of Research Findings, Mary Visher, David Emanuel, Peter Teitelbaum (MPR Associates), U.S. Department of Education, 1999.

- Leave No Child Behind: An Examination of Chicago's Most Improved Schools and the Leadership Strategies Behind Them, Karen Carlson, Shobha Shagle-Shah, and Delia Ramiriz, Chicago Schools Academic Accountability Council, 1999.

- Monitoring School Quality: An Indicators Report, Daniel Mayer, John Mullens, and Mary Moore (Mathematica Policy Research, Inc.), National Center for Education Statistics, U.S. Department of Education, December 2000.

- Profiles of Successful Schoolwide Programs, Volume 2: Implementing Schoolwide Programs, U.S. Department of Education, 1998 (http://www.ed.gov/pubs/idea_profiles/).

- *Promising Programs for Elementary and Middle Schools: Evidence of Effectiveness and Replicability*, Olatokunbo Fashola and Robert Slavin (Johns Hopkins University), Journal of Education for Students Placed At Risk, 2(3), 251-307, 1997.

- Schooling Practices That Matter Most, Kathleen Cotton, Northwest Regional Educational Laboratory, and Association for Supervision and Curriculum Development, 2000.

- *Stories of Mixed Success: Program Improvement Implementation in Chapter 1 Schools*, Catherine George, James Grisson, and Anne Just (California Department of Education), Journal of Education for Students Placed At Risk, 1(1), 77-93, 1996.

- *Toward an Understanding of Unusually Successful Programs for Economically Disadvantaged Students*, Lorin Anderson and Leonard Pellicer, Journal of Education for Students Placed At Risk, 3(3), 237-263, 1998.

- Turning Around Low-Performing Schools: A Guide for State and Local Leaders, U.S. Department of Education, 1998.

## 3) OSPI Online School Improvement Planning Tool

***IMAGINE:***

A team of teachers, school administrators, and district personnel are interested in gathering current data about their school to identify target areas for improvement. This team knows that learning improvement starts with a complete plan for the entire school - that to build this plan requires a great deal of input from a variety of sources and research to support any actions that are taken. The team goes to their computer and begins to gather data to profile their school. They build surveys online and develop a plan for gathering the information.

A few weeks have passed and the data gathering is complete. The team meets again to assess their findings and begin to develop goals. They divide the work among the members and research best practices for addressing each goal. With the research gathered to support their conclusions, they meet again to create an action plan that all members of the school will be involved in executing. They are able to track the progress of each item of the action plan, and share this information online with parents, teachers and the school board. At the end of the process, they are able to assess their plan, their progress, and set new goals for the following year, given their new successes and new areas of need.

With a School Improvement Plan in place, the principal is able to focus staff to implement and carry out the plan. The principal logs onto the OSPI website and is greeted by information specific to the school, the teachers and classes within the school, and the district.

The principal chooses assessment information for the school across all subjects and compares it to state or district standardized assessments. The screen refreshes and delivers information for the school that relates aggregated student achievement, demographics and learning environments compared to the state or district standards. Areas of concern and excellence are immediately apparent.

This useful information is only the beginning. The website now links the principal to local, statewide, and national resources aligned to state standards. The principal is able to present staff with data-driven diagnostic information AND resources specific to improving those areas. Over time, the principal will also view the improvement of his school in ways that allow evaluation of the effectiveness of particular programs and resources toward the improvement of student learning.

The most critical note is that the school improvement process and an assessment of "where my kids are" drives the search for resources to created targeted instruction to those areas where the students really need them.

This online planning tool is scheduled to be available
on the OSPI website (www.k12.wa.us) on September 30, 2001.

## 4) OSPI and Educational Service District Contacts

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| | Craig Bowman, Mathematics | 206/439-3636 | cbowman@psesd.wednet.edu |

## 5) Comprehensive Planning tools, resources, and materials

- **Washington State Essential Learnings, Benchmarks, and Frameworks**. Office of Superintendent of Public Instruction. May be downloaded from the OSPI website at www.k12.wa.us.

- **Online School Improvement Planning (SIP) tool**. Office of Superintendent of Public Instruction. **Will be available in September 30, 2001 on the OSPI** website at www.k12.wa.us.

- **Educational Service Districts**. The nine ESDs in Washington offer varying levels of school improvement planning assistance to school districts and schools. Contact information for the Curriculum and Instructional Divisions of the ESDs is included on Page 18.

- **Educational Consultants**. Educational Service District 189 (Northwest Washington ESD) has a searchable directory of educational consultants on its website (www.esd189.org). This directory is designed to assist school and district staff in planning for professional development activities. One may search for a consultant in a number of ways (e.g., name, program topic, which learning goals are addressed).

- Fouts, Jeffery T., et. al. ***The Reality of Reform: Factors Limiting Reform of Washington's Elementary Schools.*** Seattle Pacific University. Seattle, May 2000. Copies may be downloaded at www.waroundtable.com.

- Partnership for Learning. ***Making Standards Work: Smarter Schools, Smarter Kids, Success Meeting High Standards***. Seattle, 1999. Copies may be downloaded or ordered online at www.partnership4learning.org/Resources/guides.htm.

- Holcomb, Edie L. ***Asking the Right Questions: Techniques for Collaboration and School Change, 2nd Edition***. Corwin Press, Inc., Thousand Oaks, California, 1999. Copies may be ordered by e-mailing Corwin Press at order@corwinpress.com or from Amazon.com at www.amazon.com.

- **Query**. Each year, school districts are provided CDs that include the WASL results for their students with software that allows one to disaggregate data by different student populations. It also is possible to re-roster students into new classrooms and analyze trend data. CDs for individual schools may be ordered by the school district's assessment coordinator.

- Bernhardt, Victoria. ***Data Analysis: For Comprehensive Schoolwide Improvement***. Eye on Education, New York, 1998. Copies may be ordered online at www.eyeoneducation.com or from Amazon.com at www.amazon.com.

# B. Improving Reading Achievement

1) Essential Components of a Reading Program

2) School Improvement Plan - Professional Development Survey

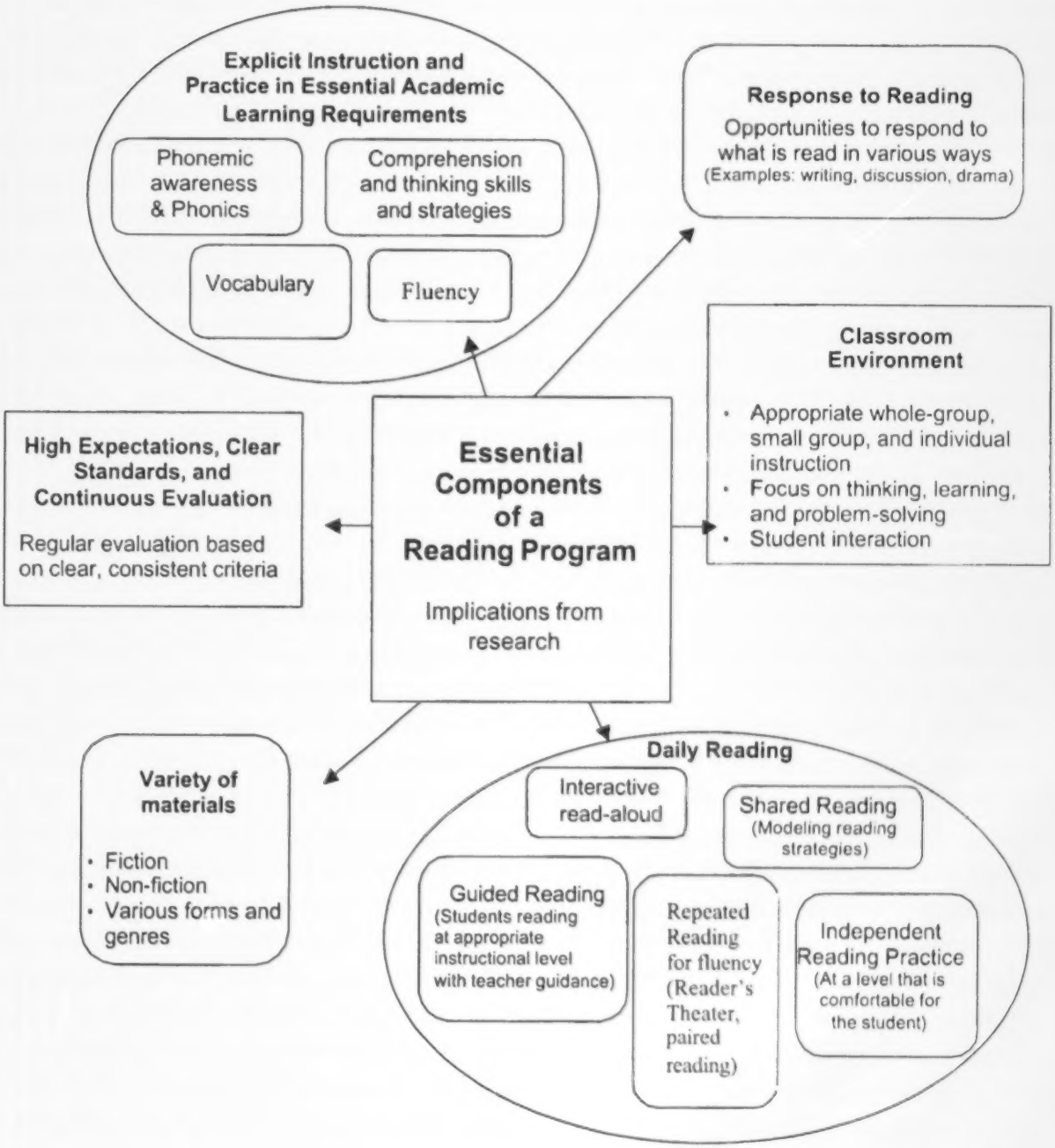
3) Reading Improvement Planning Process

4) Research on Reading Education

5) Upcoming Professional Development Opportunities in Reading

6) Reading Websites

# 1) Essential Components of a Reading Program


Explicit Instruction and Practice in Essential Academic Learning Requirements
Phonemic awareness & Phonics
Comprehension and thinking skills and strategies
Vocabulary
Fluency
Response to Reading
Opportunities to respond to what is read in various ways
(Examples: writing, discussion, drama)
Classroom Environment
• Appropriate whole-group, small group, and individual instruction
• Focus on thinking, learning, and problem-solving
• Student interaction
High Expectations, Clear Standards, and Continuous Evaluation
Regular evaluation based on clear, consistent criteria
Essential Components of a Reading Program
Implications from research
Variety of materials
• Fiction
• Non-fiction
• Various forms and genres
Daily Reading
Interactive read-aloud
Shared Reading
(Modeling reading strategies)
Guided Reading
(Students reading at appropriate instructional level with teacher guidance)
Repeated Reading for fluency (Reader's Theater, paired reading)
Independent Reading Practice
(At a level that is comfortable for the student)

Adapted from: *Asking the Right Questions, 2nd Edition*. Edie L. Holcomb, Corwin Press, Thousand Oaks, CA 2001

## 2) School Improvement Plan - Professional Development Survey

# Reading

School Name _____Date _____

- The purpose of this survey is for collecting information from staff to help design meaningful student learning improvement plans.
- The survey will provide information for professional development based on staff needs.
- The survey is designed as a collaborative tool. The team provides input collectively, and returns to the administrator.
- Teams can be comprised of single- or cross-grade levels/departments that work closely together to plan and provide instruction.

**Team Information:**
List team member names, grade levels, and content focus areas.

**NOTE:** This tool was adapted from materials developed by the Evergreen School District. It is designed as a "sample tool" to assist districts and schools in developing School Improvement Plans and plans for professional development.

## Knowledge and Understanding of the Washington State Essential Academic Learning Requirements in Reading

Please answer each question by checking one box from the choices offered that best answers the question from your team's experience, knowledge, or perspective

1. Do all team members have a copy of their grade level Curriculum Framework which includes the Reading Essential Academic Learning Requirements and Benchmark Indicators for grades 4, 7, and 10 on the Reading Continuum?

   - ❑ Not Sure
   - ❑ No
   - ❑ Yes

2. How familiar is the team with the components of their district grade-level reading expectations (if districts have them)?

   - ❑ Not familiar
   - ❑ Somewhat familiar
   - ❑ Familiar

3. If they exist, how well does the team understand and use the reading content of their district grade-level expectations?

   Does not understand well enough to use in planning lessons
   Understands and uses occasionally in planning lessons
   Understands and uses consistently in planning lessons

4. For planning purposes, teachers meet within and across grade levels to identify and correct gaps and unnecessary overlaps in reading instruction. Does this describe your building and/or district?

   - ❑ No
   - ❑ Somewhat
   - ❑ Yes

## Use of Research-Based Reading Instructional Practices

Listed below are research-based instructional practices that help ensure every student achieves at a high level. Based on your experience, knowledge, or perspective, please rate each item using these symbols:

1. None of the teachers effectively utilize these resources/references.
2. Some teachers effectively utilize these resources/references.
3. Most teachers effectively utilize these resources/references.

One Box to Indicate Rating

| | 1 | 2 | 3 |
|---|---|---|---|
| Reading instruction aligns with Washington State's Essential Academic Learning Requirements in Reading. | | | |
| Reading instruction includes systematic phonemic awareness and systematic phonics instruction in K and 1, and provides remediation for older readers based upon assessment results. | | | |
| Reading instruction includes teaching comprehension strategies to be used before, during, and after reading, such as: prediction, summarization, clarification, mental imagery, and graphic organizers. | | | |
| Reading instruction includes teaching comprehension strategies to be used before, during, and after reading in content areas, such as: social studies, math, etc. | | | |
| Reading instruction incorporates extended written responses in which students demonstrate their comprehension and explain their thinking. | | | |
| Reading instruction incorporates tasks that develop and require the higher order thinking skills of analyzing, interpreting, and synthesizing information and ideas. | | | |
| Reading instruction includes direct teaching of vocabulary before and during reading in multiple ways, in multiple contexts, and with multiple exposures. | | | |
| Reading instruction includes fluency work, such as: guided reading and repeated oral reading, based upon assessment results. | | | |
| Reading instruction is differentiated and includes re-teaching and additional practice, based upon assessment results. | | | |
| Reading instruction approaches include: interactive read-alouds | | | |
| shared reading | | | |
| guided & repeated reading | | | |
| independent reading | | | |
| Reading instruction is delivered in both small and whole group settings. | | | |
| Reading instruction strategies incorporate accommodations for diverse learners, such as: ESL/bilingual, special education, etc. | | | |
| Reading instruction utilizes age appropriate materials and tasks. | | | |
| Reading instruction includes intentional teaching of modes, such as: narrative, expository, descriptive, and persuasive. | | | |

## Professional Knowledge

Teachers' level of knowledge and use of the following professional resources and references impact student success in reading. Based on your team's knowledge and use, please rate each item using this scale:

3. None of the teachers effectively utilize these resources/references.
4. Some teachers effectively utilize these resources/references.
5. Most teachers effectively utilize these resources/references.

| | One Box to Indicate Rating | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| OSPI-sponsored resources such as Frameworks, Classroom-Based Evidence Models (Toolkits), Prototype Tasks, Example Tests, and Assessment Samplers | | | |
| District-adopted curriculum and materials | | | |
| Scientific Reading Research – (examples: *Preventing Reading Difficulties in Young Children, National Reading Panel: Teaching Children to Read, RAND Report)* | | | |
| Modes, types of genres, and features of text | | | |
| Professional articles, journals, and books | | | |
| Teacher support services, i.e., Mentoring, TAP, TOSA, or peer coaching | | | |
| Teacher-led study groups | | | |

## Assessment

Listed below are assessment practices and knowledge. When utilized effectively, they impact student success in reading. Based on your team's knowledge and use, please rate each item using this scale:

1. None of the teachers have knowledge and effectively utilize these assessments.
2. Some teachers have knowledge and effectively utilize these assessments.
3. Most teachers have knowledge and effectively utilize these assessments.

✓ One Box to Indicate Rating

| | 1 | 2 | 3 |
|---|---|---|---|
| Students are given time and skills to self-evaluate and set personal reading goals on a regular basis. | | | |
| WASL data is analyzed to assist in planning of reading instruction. | | | |
| Monitoring notes/anecdotal records assist in planning of reading instruction. | | | |
| A variety of assessments are analyzed to drive instruction, such as: | | | |
| Second Grade Oral Reading Assessment Results | | | |
| Performance Tasks (rubrics and/or scoring criteria) | | | |
| NCS Mentor CD/reading assessments (grades 4, 7, 10) | | | |
| Reading Toolkit assessments (grades 4, 7, 10) | | | |
| Sample WASL assessments (grades 4, 7, 10) | | | |

## Staff Development

Which staff development models does your team find most helpful? Please rate each item on a scale of 1 to 3, with 1 being least helpful.

___Cognitive /Peer Coaching _____Mentoring on site _____Grade level inservice
___ All school inservice _____Workshops _____Summer Institutes
___½ day training,½ day planning for implementation _____ Peer visitations

## 3) Reading Improvement Planning Process

Sample

School_____ Date_____

On the following pages, a sample "Reading Improvement Planning Process" is described for an elementary, middle/junior high, or high school. Before you begin the process the following should be in place. The school has:

A) Designated staff who will form a Reading Leadership Team.

B) Worked to create an environment that supports:
- staff development on research-based reading practices/strategies.
- the use of data to determine individual student strengths and weaknesses in reading.
- ongoing assessment and evaluation of programs, staff, and student performance with the goal of increased student achievement in reading.
- the importance of teaching reading throughout the K-12 system and across all content areas.

C) Selected or will soon select an effective reading program (including curriculum, instruction, and assessment materials) that is aligned with the Essential Academic Learning Requirements in Reading.

D) Developed plans for performance based reading classes: general reading classes that support students reading on grade-level or one-year below grade level; above level classes that challenge advanced readers; and targeted-assistance classes for struggling readers that are at least two grade levels below their present grade level.

E) Developed reading plans for students and/or groups of students in the targeted-assistance classes (see D above) and to inform parents of those plans.

F) Assessed students for current reading level (comprehension and fluency) for new students and all returning students.

**Note:** This tool was developed initially for the federal Reading Excellence Act grant, which focused on schools with large numbers of struggling readers. It is a highly structured process instrument, which district and school staffs are encouraged to modify as needed.

# Sample
# Reading Improvement Planning Process

For each item below indicate:
0 = No implementation yet
/ = Some implementation
X = Full implementation

School_____ Date_____

| | |
|---|---|
| **1. Implement Reading Leadership Team** | |
| • Reading Leadership Team represents the entire staff (ELL,SPED, etc.) and has parent representatives..... | _____ |
| • Principal arranges leadership for team & attends all meetings..... | _____ |
| • Team meetings are regularly scheduled (at least once a month)..... | _____ |
| • Team meetings are efficient and effective..... | _____ |
| • Team drafts and uses group processes and guidelines ..... | _____ |
| • Team drafts Reading Mission Statement and operation principles..... | _____ |
| • Team drafts Reading Improvement Plan..... | _____ |
| **2. Increase Staff Collaboration/Communication About Reading** | |
| • Entire staff involved in/aware of the Reading Improvement Plan..... | _____ |
| • Team shares priorities, data, and drafts of Improvement Plan with staff..... | _____ |
| • Staff involved in setting priorities on Reading Improvement Plan..... | _____ |
| • Sub-groups formed to work on high priority areas of Plan, i.e.: content area reading, language arts reading, struggling readers..... | _____ |
| • Sub groups involve staff via: | |
| Input requested/brainstorming..... | _____ |
| 10 minutes of update/feedback/discussion at staff meetings..... | _____ |
| • All staff involved in formal adoption/rejection of Plan revisions..... | _____ |
| • Parents informed of Reading Leadership Team/Improvement Plan..... | _____ |
| • Research-based strategies discussed at staff/grade level meetings..... | _____ |
| • Reading adoption implementation progress and fidelity discussed at staff and grade level meetings..... | _____ |
| **3. Create Data Collection and Data Analysis Systems** | |
| • System to administer score, share and analyze data including large-scale tests such as WASL and ITBS and district/school level-tests used for diagnostic purposes such as Gates MacGinnite, Woodcock/Johnson, Diagnostic Assessment of Reading..... | |
| • A data analysis system is in place for students at or below grade level ..... | _____ |
| • Principal leads staff in analyzing data as soon as it is available..... | _____ |
| • Revisions are made in Reading Improvement Plan based on data analysis..... | _____ |
| • Adjustments in classroom instruction to meet all students' needs are made based on data analysis..... | _____ |
| **4. Research, Select and Implement a Core Reading Program** | |
| • Staff carefully analyzes reading programs in light of research and selects a reading program that best adheres to research..... | _____ |

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| | |
|---|---|
| **5. Learn, Use, and Analyze Core Reading Program Materials**<br>• Staff learns how to implement core reading curriculum and instruction materials.....<br>• All staff use core reading materials and strategies for reading. (Example: common pre, during, and post-reading strategies, vocabulary instruction, text forms instruction, etc.).....<br>• All staff use progress-monitoring materials from or developed for core program materials to monitor all-school progress and targeted-assistance student progress.....<br>• Reading Leadership Team expedites coordinated implementation of core reading program materials.....<br>• Principal and staff developer ensure fidelity of implementation of core reading program materials.....<br>• Principal and staff developer ensure coordinated use of research-based strategies and techniques to enhance core reading program in and across grade levels and content areas.....<br>• Appropriate and necessary supplemental reading materials are learned, implemented, and analyzed for effectiveness..... | _____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____ |
| **6. Create Reading Groupings that Maximize Learning in Targeted-Assistance Reading Classes**<br>• All students are reading material and learning reading skills at their instructional level.....<br>• In-class, grade level, or cross grade level groupings allow for reading instruction at students' instructional level.....<br>• Principal and staff developer assist in identifying and implementing effective groupings..... | _____<br>_____<br>_____ |
| **7. Allocate Sufficient Time for Reading Classes**<br>• All K-6 grade students have daily reading instruction and daily practice in reading appropriate to the student's assessed reading ability.....<br>• All targeted-assistance readers have additional reading instruction in a modeled, guided, and independent system in addition to the all-school reading plan..... | _____<br>_____ |
| **8. Protect and Maximize Reading Class Time with Master Schedule**<br>• Reading Leadership Team and principal design and propose to staff a master schedule that protects and maximizes reading class time.....<br>• Staff adopts/refines master schedule that maximizes reading class time..... | _____<br>_____ |
| **9. Assign Staff to Maximize Learning of Reading**<br>• Staff with the most skill and expertise in research-based reading instruction are assigned to all-school and targeted-assistance reading classes..... | _____ |

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| | |
|---|---|
| **10. Organize and Maximize Staff Training/Mentoring/ Coaching** | |
| • Entire staff trained in reading research..... | _____ |
| • Entire staff trained in core reading program and common comprehension and vocabulary strategies..... | _____ |
| • Reading program implementation training continues throughout the year..... | _____ |
| • Progress on reading program implementation and fidelity discussed at staff and grade level meetings..... | _____ |
| • Research-based reading strategies taught and discussed at staff/grade level meetings..... | _____ |
| • Entire staff also trained in: | _____ |
| - Assessment and progress monitoring procedures and use of data to drive decisions..... | |
| - Methods of teaching vocabulary and language to ELLs..... | _____ |
| - Research-based in-class interventions..... | _____ |
| - Use of research-based supplemental programs..... | _____ |
| • Reading staff developer creates and follows a schedule for mentoring..... | _____ |
| | _____ |
| **11. Use In-Class Interventions for Struggling Readers Based on Data** | |
| • Each targeted-assistance teacher analyzes data to determine the need for in-class interventions (Examples: daily oral partner reading, repeated readings, peer tutoring, think-aloud on metacognitive strategies, comprehension, vocabulary, and word attack strategies, etc.)..... | _____ |
| • Each teacher implements consistent in-class interventions that meet his/her students' needs..... | _____ |
| • Interventions include oral language and intense vocabulary work for English Language Learners..... | _____ |
| **12. Create System of School-wide Interventions for Struggling Readers** | |
| • Reading Leadership Team assesses need for school-wide interventions and proposes appropriate interventions to staff as part of the Reading Improvement Plan (Examples: after-school tutoring, Sunrise Reading Class, Summer Reading Camp, etc.)..... | _____ |
| • Staff adopts and implements needed school-wide interventions..... | _____ |
| • Interventions include oral language and intense vocabulary work for English Language Learners..... | _____ |
| **13. Implement/Refine Problem-Solving Systems for Targeted-Assistance Students' Special Reading Needs to Provide Extended/Additional Support/Interventions** | |
| • Problem-solving system implemented for individual special needs..... | _____ |
| • Problem-solving system used in special cases when a student's reading needs are not met by in-class or school-wide interventions..... | _____ |

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| | |
|---|---|
| **14. Enhance Administrative Supervision and Monitoring of Reading Instruction**<br>• Principal actively leads the Reading Improvement Plan effort.....<br>• Principal attends all staff reading trainings.....<br>• Principal attends all Reading Leadership Team meetings.....<br>• Principal observes reading instruction in each all school reading class.....<br>• Principal uses research-based reading observation checklist.....<br>• Principal provides intervention for staff needing extra help learning research-based programs and strategies..... | _____<br>_____<br>_____<br><br>_____<br>_____<br><br>_____ |
| **15. Increase Parental Involvement in Reading**<br>• Reading Leadership Team proposes ways to increase involvement of all parents in reading and provide parental training especially for parents of targeted assistance students.....<br>• Staff adopts and implements ways to increase parental involvement in reading improvement..... | <br><br>_____<br><br>_____ |
| **16. Enhance Reporting of Reading Progress to Students/Parents/Public**<br>• Reading Leadership Team proposes ways to report reading progress to students/parents/public (including information in first language).....<br>• Staff adopts and implements ways to report reading progress to students/parents/public (including information in first language)..... | <br><br>_____<br><br>_____ |
| **17. Establish School-wide Reading Rituals, Traditions, and Celebrations**<br>• Reading Leadership Team proposes new reading rituals, traditions, and celebrations that promote reading achievement.....<br>• Staff adopts and implements new reading rituals and traditions..... | <br><br>_____<br>_____ |

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## 4) Research on Reading Education

National Reading Panel. ***Teaching Children to Read: Findings of the National Reading Panel.*** US Department of Education, April 13, 2000. The report of the National Reading Panel, commissioned by the NICHD, is a meta-analysis of 100,000 validated research studies. This comprehensive report addresses the latest findings in phonemic awareness, phonics, comprehension, and motivation to read. Both the complete report and a 33-page summary are copies may be ordered on line, April 2000. Copies may be ordered online at: http://www.nichd.hih.gov/publications/nrp/smallbook.pdf

The Learning First Alliance. ***Every Child Reading: An Action Plan***. US Department of Education, 1998. This is a consensus document of what member organizations believe necessary for children to learn to read during preschool, kindergarten, first grade, and second grade including English as a Second Language learners—Prepared by the Learning First Alliance, 1998. Copies may be ordered online at http://www.learningfirst.org/readingaction.html

National Research Council. ***Preventing Reading Difficulties in Young Children***. US Department of Education, 1998. This is the 1998 report that synthesizes the wealth of research on early reading development. It provides an integrated picture of how reading develops and how reading instruction should proceed. The book includes recommendations for practice and further research. Hardcover copies are copies may be ordered from the National Academy Press by calling 1-800-624-6242. Each book costs $35.95 plus shipping and handling. Excerpts may be ordered online at http://catsis.weber.edu/UCIRA/preventi.htm or http://www.middleweb.com/ReadingNRC.html—*Executive Summary

Moats, Louisa. ***Teaching Reading is Rocket Science: What Experts Teachers of Reading Should Know and Be Able to do***, American Federation of Teachers, June 1999. This publication discusses the current state of teacher preparation in reading. Scientific and political consensus around reading research confirms that the knowledge exists to teach all but a handful of severely disabled children to read well. The report makes recommendations for improving the system of teacher education and professional development. Copies may be ordered by calling 1-800-238-1133, ext. 5684.

Constantino, Magda. ***Reading and Second Language Learners: A Research Report*** Evergreen Center for Educational Improvement and the Office of the Superintendent of Public Instruction,1999. This publication discusses the report, *Preventing Reading Difficulties in Young Children*, as it relates to second language learners and offers suggestions for informed instruction based on national research plus data collected from school sites in Washington State. The needs of second language learners at various levels of language acquisition are delineated in the report to a degree that can inform instruction. Copies may be ordered at http://www.k12.wa.us/publications/

Ciardi, Russell. ***Research Into Practice: An Overview of Reading Research for Washington State***, Office of the Superintendent of Public Instruction, 1998. This publication provides background information on the history of reading in Washington State, theoretical and research perspectives in the field, practices that support reading development, and suggestions for comprehension instruction at fourth grade and beyond. Copies may be ordered at http://www.k12.wa.us/publication.

## 5) Upcoming Professional Development Opportunities in Reading

- **2001 WORD Conference** sponsored by the Washington Organization of Reading Development (WORD) - Provides sessions for pre-service and in-service teachers to support their growth as reading practitioners.

  **October 18-20,** Shoreline Center, Seattle, WA. Register online at: http://msiera@st.martin.edu

- **Education Now & In the Future Conference** sponsored by Northwest Regional Educational Laboratory - Delivers sessions and workshops highlighting research-based best practices, procedural knowledge, and strategies for improving educational results.

  **October 29-30,** Portland, OR. Register online at: http://confreg.uoregon.edu/ENF2001/

- **Winter 2001 State Assessment Conference** sponsored by Washington Educational Research Association and OSPI - Provides presentations of research on current issues in education. The theme for the winter conference is "*Classroom-Based Assessment.*"

  **December 5–7,** Sea-Tac Hilton. Register online at http://www.wera-web.org/

- **9th Annual OSPI January Conference** sponsored by OSPI, the focus of this conference will be on creating learning environments, which give students the opportunity to acquire the knowledge and skills they will need for life in the 21st century.

  **January 22-23**, Spokane Convention Center.

- **Spring 2002 WERA Conference** sponsored by Washington Educational Research Association - Provides presentations of research on current issues in education. The theme for the spring conference is, *"Developing, Planning and Implementing Programs that Work in Reading and Mathematics".*

  **March 15-16,** Sea-Tac Hilton. Register online at http://www.wera-web.org/

- **2002 Summer Institutes** sponsored by OSPI – Provides sessions designed to support Washington's efforts at education reform. This year's theme is "*Transforming the Learning, Teaching, and Leadership Environment.*"

- **OSPI Workshops** sponsored by the Office of the Superintendent of Public Instruction—a variety of workshops addressing reading instruction, curriculum, and assessment issues will be presented throughout the year on K-20 and at regional sites to be announced. Watch the website for updates at http://www.k12.wa.us.

## 6) Reading Websites

### General Education Sites

**Office of Superintendent of Public Instruction**
http://www.k12.wa.us

**U.S. Department of Education (ED)**
http://www.ed.gov/

**Reading Excellence Program (REA)**
http://www.ed.gov/offices/OESE/REA/

**America Reads Challenge (ARC)**
http://www.ed.gov/inits/americareads/

**LINKS Program**
http://www.linkslearning.org

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### Federal Agencies and Programs

**National Institute for Child Health and Human Services (NICHD)**
http://www.nichd.nih.gov/about/crmc/cdb/cdb.htm

**National Institute for Literacy (NIFL)**
http://www.nifl.gov/

**National Academy of Sciences (NAS)**
http://www.nas.edu/

**Corporation for National Service (CNS)**
http://www.cns.gov/

**Reading Is Fundamental (RIF)**
http://www.rif.org/

**ERIC Clearinghouse on Elementary and Early Childhood Education**
http://ericeece.org/

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### R&D and Technical Assistance Providers

**Center for the Improvement of Reading (CIERA)**
http://www.ciera.org/

**Society for the Scientific Studies of Reading**
http://www.gse.utah.edu/edst/sssr/

**Regional Educational Laboratories**
http://www.ed.gov/pubs/triedandtrue/map.html

**Comprehensive Technical Assistance Centers**
http://www.wested.org/cc/html/ccnetwork.htm

**Reading Success Network**
http://sccac.lacoe.edu/priorities/reading.html

**AASA Online: Current Issues and Ideas in Reading Instruction**
http://www.aasa.org/Issues/Reading/contents.htm

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## National Organizations

**Council of Chief State School Officers (CCSSO)**
http://www.ccsso.org/

**International Reading Association (IRA)**
http://www.reading.org/

**National Center for Family Literacy (NCFL)**
http://www.famlit.org/

**National Education Association (NEA)**
http://www.nea.org/

**American Federation of Teachers (AFT)**
http://www.aft.org/index.html

**National Association for the Education of Young Children (NAEYC)**
http://www.naeyc.org/about/about_index.htm

# C. Improving Mathematics Achievement

1) Essential Components of a Mathematics Program

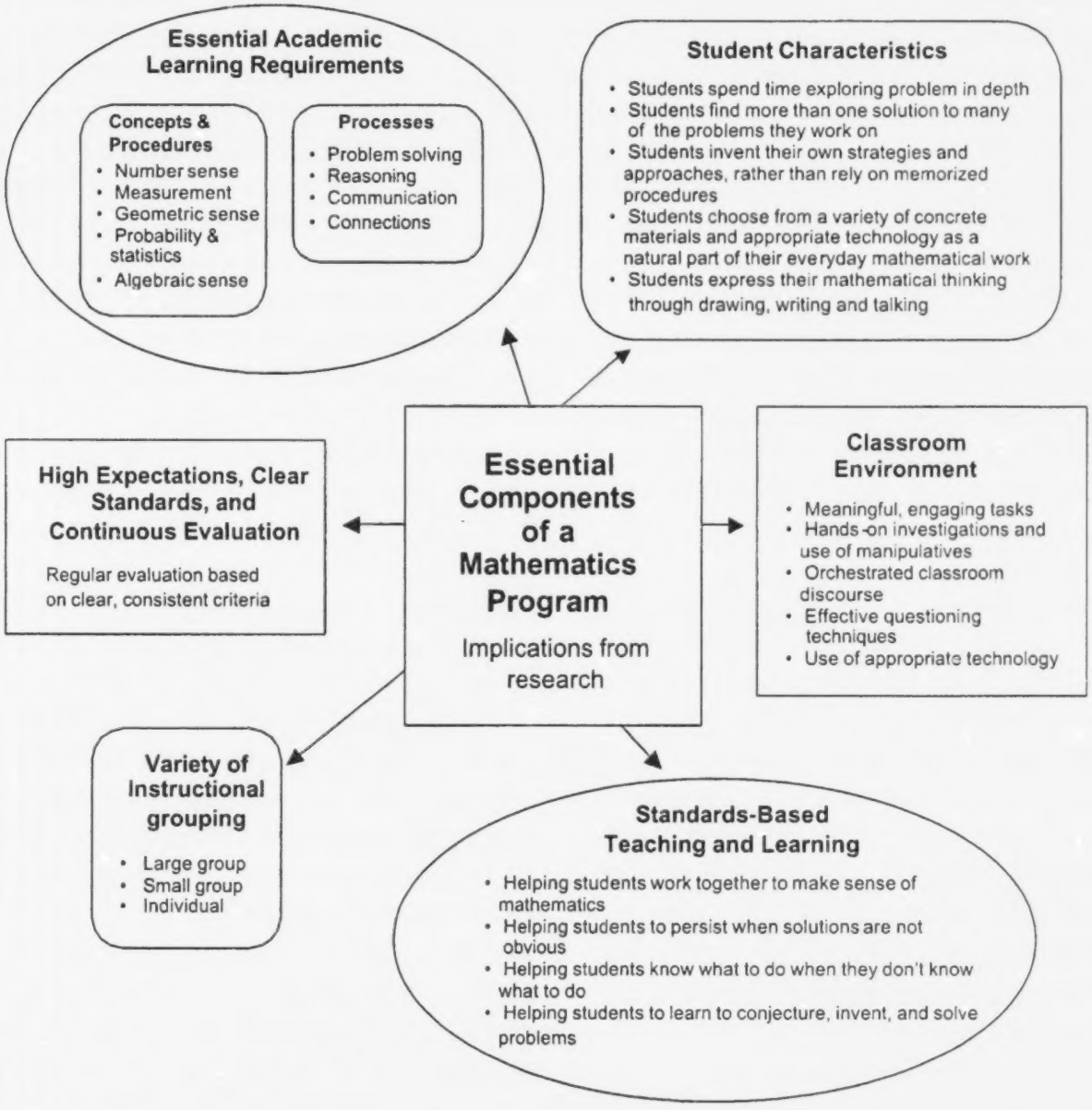
2) Surveys: Continuous Improvement Process For Mathematics

3) Research on Mathematics Education

4) Upcoming Professional Development Opportunities in Mathematics

5) Mathematics Websites

# 1) Essential Components of a Mathematics Program


Essential Academic Learning Requirements
Concepts & Procedures
• Number sense
• Measurement
• Geometric sense
• Probability & statistics
• Algebraic sense
Processes
• Problem solving
• Reasoning
• Communication
• Connections
Student Characteristics
• Students spend time exploring problem in depth
• Students find more than one solution to many of the problems they work on
• Students invent their own strategies and approaches, rather than rely on memorized procedures
• Students choose from a variety of concrete materials and appropriate technology as a natural part of their everyday mathematical work
• Students express their mathematical thinking through drawing, writing and talking
High Expectations, Clear Standards, and Continuous Evaluation
Regular evaluation based on clear, consistent criteria
Essential Components of a Mathematics Program
Implications from research
Classroom Environment
• Meaningful, engaging tasks
• Hands-on investigations and use of manipulatives
• Orchestrated classroom discourse
• Effective questioning techniques
• Use of appropriate technology
Variety of Instructional grouping
• Large group
• Small group
• Individual
Standards-Based Teaching and Learning
• Helping students work together to make sense of mathematics
• Helping students to persist when solutions are not obvious
• Helping students know what to do when they don't know what to do
• Helping students to learn to conjecture, invent, and solve problems

Adapted from: *Asking the Right Questions, 2nd Edition*. Edie L. Holcomb, Corwin Press, Thousand Oaks, CA 2001

## 2) Surveys: Continuous Improvement Process: For Mathematics

School Name _____ Date _____

- The purpose of these surveys is to collect information from teachers to determine existing beliefs about the level of student performance and their school profile.

- Data gathered from this survey can be compared with data from other sources to stimulate discussion of discrepancies between perceptions and reality.

- The survey can be administered to an entire staff or to representative segments of the staff.

- We are in the process of developing tools to assist in organizing and analyzing data to identify strengths and challenges and set math improvement goals.

The Belief Surveys for Mathematics were adapted from the version of this document that was published in June 2001.

## Continuous Improvement Process for Mathematics
## Student Performance Survey

Please answer the questions by checking one box from the choices offered that best describes your opinion based on your observation and knowledge.

| | SD | D | A | SA |
|---|---|---|---|---|
| **Content Strands** Our students understand the concepts involved in: | | | | |
| 1. Number Sense | | | | |
| 2. Geometric Sense | | | | |
| 3. Algebraic Sense | | | | |
| 4. Measurement | | | | |
| 5. Probability and Statistics | | | | |
| **Process Strands** Our students understand the processes involved in: | | | | |
| 6. Solves Problems/Reasons Logically | | | | |
| 7. Communication | | | | |
| 8. Makes Connections | | | | |
| **Student Demographics** Our students perform equitably across: | | | | |
| 9. Gender | | | | |
| 10. Race | | | | |
| 11. Socioeconomic Status | | | | |
| 12. English Language Learners | | | | |
| 13. Special Education | | | | |
| 14. Title I | | | | |
| 15. Migrant | | | | |
| 16. Other: | | | | |
| **Student Performance Trends** Our students are improving in their understanding of math concepts and processes. | | | | |
| 17. Number Sense | | | | |
| 18. Geometric Sense | | | | |
| 19. Algebraic Sense | | | | |
| 20. Measurement | | | | |
| 21. Probability and Statistics | | | | |
| 22. Solves Problems/Reasons Logically | | | | |
| 23. Makes Connections | | | | |

* SD = Strongly Disagree; D = Disagree; A = Agree; SA = Strongly Agree

## Continuous Improvement Process for Mathematics
## School Profile Survey

Please answer the questions by checking one box from the choices offered that best describes your opinion based on your observation and knowledge.

| | SD | D | A | SA |
|---|---|---|---|---|
| **Students** | | | | |
| 1. Our students like math. | | | | |
| 2. Our students think they are good in math. | | | | |
| 3. Our students have high expectations for their achievement in math. | | | | |
| **Staff (Teachers, Administrators, Para-educators)** | | | | |
| 4. Our staff believes that all students can meet math standards. | | | | |
| 5. Our staff has a strong background in mathematics. | | | | |
| 6. Our staff understands how children learn mathematics. | | | | |
| 7. Our staff exhibits positive attitudes towards mathematics and its uses. | | | | |
| 8. Our staff has a thorough knowledge and understanding of the Washington State EALRs in mathematics. | | | | |
| **Parents (Parents/Guardians/Community)** | | | | |
| 9. Our parents believe their children can meet math standards. | | | | |
| 10. Our parents are able to help their children in math. | | | | |
| 11. Our parents have a positive attitude towards mathematics and its uses. | | | | |
| 12. Our parents attend math-related activities at our school. | | | | |
| **Curriculum (what math is taught)** | | | | |
| 13. Our district-adopted curriculum is closely aligned with the state/district frameworks in: | | | | |
| a. Number Sense | | | | |
| b. Algebraic Sense | | | | |
| c. Geometric Sense | | | | |
| d. Measurement | | | | |
| e. Probability and Statistics | | | | |
| f. Solves Problems/Reasons Logically | | | | |
| g. Makes Connections | | | | |
| 14. Our staff has adequate professional development in teaching the district-adopted curriculum. | | | | |
| 15. Our staff teaches the district-adopted curriculum. | | | | |
| 16. Our staff has adequate resources (e.g., manipulatives, technology, supplemental materials) to teach the district-adopted curriculum. | | | | |

* SD = Strongly Disagree; D = Disagree; A = Agree; SA = Strongly Agree

## Continuous Improvement Process for Mathematics
## School Profile Survey

| | SD | D | A | SA |
|---|---|---|---|---|
| **Instruction (How math is taught)** | | | | |
| 17. Math instruction is planned to match the needs of all students, based on information about the students' current academic performance. | | | | |
| 18. Instruction engages students in challenging mathematics activities. | | | | |
| 19. Instructional strategies in math incorporate accommodations for diverse learners (i.e., ESL, special education, gifted, etc.) | | | | |
| 20. Students are given time, and skills are developed, to set personal learning goals and reflect on learning. | | | | |
| 21. Instructional strategies encourage students to engage in discussions, develop verbal communication with others about their ideas, support their ideas with evidence and listen to others' points of view. | | | | |
| 22. Mathematics instruction incorporates writing; students write to demonstrate their learning, explain their thinking, and to communicate about math as it relates to real life situations. | | | | |
| 23. Math instruction incorporates time for both individual and group work. | | | | |
| 24. Math instruction incorporates tasks for learning computation and formulating accurate responses through: | | | | |
| a. Problem-solving tasks | | | | |
| b. Mental math. | | | | |
| c. Estimation. | | | | |
| d. Student-generated algorithms. | | | | |
| e. Drill and practice. | | | | |
| 25. Math instruction includes the use of tools to assist in solving challenging problems (calculator, manipulatives, etc.). | | | | |
| 26. Instructional strategies include questioning related to estimation, prediction, and evaluation of mathematical problems. | | | | |
| 27. Instruction includes performance tasks, where students are actively engaged in learning activities that are based in real world applications. | | | | |

| **Assessment**<br>**(How we find out what students understand)** | | | | |
|---|---|---|---|---|
| | SD | D | A | SA |
| 28. Our students and teachers use daily assessment data to improve student learning. | | | | |
| 29. Assessment drives instruction and curriculum decisions | | | | |
| 30. Our teachers use multiple assessment tools (i.e. rubrics, interviews, short and extended response problems, and tests to measure student understanding of mathematical concepts. | | | | |
| 31. Our teachers collaboratively study student work samples to help plan mathematics instruction. | | | | |
| 32. Our teachers provide opportunities for students to participate in peer assessments and assessment development. | | | | |

| | SD | D | A | SA |
|---|---|---|---|---|
| **School Practice** | | | | |
| 33. We provide a welcoming environment and opportunities for a variety of parents to: | | | | |
| a. Learn about our mathematics program and learning expectations for students (i.e. family math night, math newsletter) | | | | |
| b. Participate in the decision making process related to our mathematics program (i.e. site council) | | | | |
| 34. Our schedule provides adequate time for students to do in-depth learning of math concepts and processes. | | | | |
| 35. Our school provides adequate time and resources for teachers to plan math lessons collaboratively | | | | |
| 36. Our school provides adequate professional development in: | | | | |
| a. Teaching the district-adopted curriculum | | | | |
| b. Mathematics pedagogy | | | | |
| c. The use of multiple assessment tools (i.e. by collaboratively studying student work samples) | | | | |

* SD = Strongly Disagree; D = Disagree; A = Agree; SA = Strongly Agree

## 3) Research on Mathematics Education

***Focusing on Learning Mathematics in the Middle Years: A Research Perspective***. Office of Superintendent of Public Instruction, 2001. A series of 6 videotapes of noted researchers in mathematics education discussing their findings and providing practical suggestions for classroom implementation. Copies **may be ordered at http://www.k12.wa.us/publications/.**

Johnson, Jerry, ***Teaching and Learning Mathematics: Using Research to Shift From the "Yesterday" Mind to the "Tomorrow" Mind.*** Office of Superintendent of Public Instruction, 2000. A user-friendly synopsis of important recent research in mathematics education organized around the Essential Academic Learning Requirements strands for mathematics. **Copies may be downloaded or ordered online at no charge at http://www.k12.wa.us/publications/**

***Organizing for Success: Improving Mathematics Performance in Washington State.*** Office of Superintendent of Public Instruction, 2000. Results of a study done on schools who showed better than average gains in scores on the WASL led to the identification of common characteristics for high-performing schools. Copies may be downloaded or ordered online at no charge **at http://www.k12.wa.us/publications/**

***Goldsmith, Lynn, et al, Choosing a Standards-Based Mathematics Curriculum***. Education Development Center, Inc., 1998. This book offers assistance to districts in evaluating standards-based math texts and in implementing new curriculum. Copies may be ordered online **at www.heinemann.com/**

***It's Just Good Teaching Series***. Northwest Regional Educational Laboratory. This series includes publications and videos that illustrate and promote effective teaching strategies for all students in mathematics and science. Copies may be downloaded or ordered online at **www.nwrel.org/msec/just_good/index.html**

**National Research Council, *Mathematics Education in the Middle Grades: Teaching to Meet the Needs of Middle Grades Learners and to Maintain High Expectations.*** National Academy of Sciences, 2000. The series of articles that make up this book outline the issues of middle grades education and provide a variety of approaches and model solutions. Copies may be ordered online at **www.nap.edu**.

National Research Council, ***Educating Teachers of Science, Mathematics, and Technology: New Practices for the New Millennium.*** National Academy of Sciences, 2001. This book examines important issues of teacher professionalism and presents vignettes of exemplary teacher education practices in science and mathematics. National Academy of Sciences, 2001. Copies may be ordered online at **www.nap.edu**.

National Research Council, ***How People Learn: Brain, Mind, Experience and School.*** National Academy of Sciences, 1999. This book offers exciting, valuable research about the mind, the brain and the processes of learning. Copies may be ordered online at **www.nap.edu**.

Owens, Douglas T., editor, **Research *Ideas for the Classroom: Middle Grades Mathematics.*** National Council of Teachers of Mathematics, 1993. This series provides an overview of practical, interpretations of research that bridges the gap between researchers and the classroom. Copies may be ordered online at www.nctm.org.

Jensen, Robert J., editor, ***Research Ideas for the Classroom: Early Childhood Mathematics.*** National Council of Teachers of Mathematics, 1993. This series provides an overview of practical, interpretations of research that bridges the gap between researchers and the classroom. Copies may be ordered online at www.nctm.org.

Wilson, Patricia S., editor, ***Research Ideas for the Classroom: High School Mathematics. National Council of Teachers of Mathematics,*** 1993. This series provides an overview of practical, interpretations of research that bridges the gap between researchers and the classroom. Copies may be ordered online at www.nctm.org.

Loucks-Horsley, et al, ***Designing Professional Development for Teachers of Science and Mathematics.*** Corwin Press, Inc., 1998. This book describes effective, research-based, strategies for designing professional development for science and mathematics teachers. Copies may be ordered at www.corwinpress.com/.

## 4) Upcoming Professional Development Opportunities in Mathematics

- **2001 Northwest Math Conference** sponsored by the Washington State Mathematics Council – A variety of sessions providing current information on standards-based math curriculum, instruction and assessment related topics.

  **October 11-13**, Bellevue, WA. Register online at: http://nwmathconf.org/Registration.htm

- **Education Now & In the Future Conference** sponsored by Northwest Regional Educational Laboratory - Delivers sessions and workshops highlighting research-based best practices, procedural knowledge, and strategies for improving educational results.

  **October 29-30**, Portland, OR. Register online at: http://confreg.uoregon.edu/ENF2001/

- **Winter 2001 State Assessment Conference** sponsored by Washington Educational Research Association and OSPI - Provides presentations of research on current issues in education. The theme for the winter conference is "*Classroom-Based Assessment.*"

  **December 5 – 7**, Sea-Tac Hilton. Register online at http://www.wera-web.org/

- **9th Annual OPSI January Conference** sponsored by OSPI, the focus of this conference will be on creating learning environments, which give students the opportunity to acquire the knowledge and skills they will need for life in the 21st century.

  **January 22-23**, Spokane Convention Center.

- **Spring 2002 WERA Conference** sponsored by Washington Educational Research Association - Provides presentations of research on current issues in education. The theme for the spring conference is, *"Developing, Planning and Implementing Programs that Work in Reading and Mathematics"*.

  **March 15- 16**, Sea-Tac Hilton. Register online at http://www.wera-web.org/

## 5) Mathematics Websites

### General Education Sites

**Office of Superintendent of Public Instruction**
http://www.ospi.wednet.edu/index.html

**U.S. Department of Education (ED)**
http://www.ed.gov/

**Educational Development Council**
www.edc.org

**Vancouver Schools Math Web**
www.vannet.k12.wa.us/inctr/MathWEB/MathWEB.htm

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### Federal Agencies and Programs

**Eisenhower National Consortium**
www.enc.org

**National Institute for Child Health and Human Services (NICHD)**
http://www.nichd.nih.gov/about/crmc/cdb/cdb.htm

**National Academy of Sciences (NAS)**
http://www.nas.edu/

**ERIC Clearinghouse on Elementary and Early Childhood Education**
http://ericeece.org/

**The K-12 Mathematics Curriculum Center**
http://www.edc.org/mcc/

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## R&D and Technical Assistance Providers

National Academy Press
http://www.nap.edu/

Comprehensive Technical Assistance Centers
http://www.wested.org/cc/html/ccnetwork.htm

Northwest Regional Educational Laboratory
www.nwrel.org/msec

North Central Regional Educational Laboratory
www.ncrel.org

Teacher Educational Materials Project (TE-MAT)
http://www.te-mat.org/

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## National Organizations

National Council of Teachers of Mathematics
www.nctm.org

National Council of Supervisors of Mathematics
www.ncsmonline.org

Council of Chief State School Officers (CCSSO)
http://www.ccsso.org/

National Education Association (NEA)
http://www.nea.org/

American Federation of Teachers (AFT)
http://www.aft.org/index.html

American Association for the Advancement of Science Project 2061
http://www.project2061.org/

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

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